Patent Claims

1. Nucleic acid, characterised in that it codes for the non-selective cation channel OTRPC4 or for a fragment, a functional variant, an allelic variant or a subunit, or variants of said nucleic acid on the basis of the degenerative code or a nucleic acid which is able to hybridise with said nucleic acid.

2. Nucleic acid according to claim 1, characterised in that it is RNA.

3. Nucleic acid according to claim 1, characterised in that it is DNA.

4. Nucleic acid according to one of claims 1 or 3, characterised in that it contains 5' or 3' or 5' and 3' untranslated regions.

5. Nucleic acid according to one of claims 1 to 4, characterised in that it codes for a fragment of the non-selective cation channel OTRPC4.

6 Nucleic acid according to one of claims 1 to 5, characterised in that it codes for a functional variant of the non-selective cation channel OTRPC4.

7. Nucleic acid according to one of claims 1 to 6, characterised in that it codes for an allelic variant of the non-selective cation channel OTRPC4.

8. Nucleic acid according to one of claims 1 to 7, characterised in that it codes for variants of nucleic acid on the basis of the degenerative code.

9. Nucleic acid, characterised in that it is capable of hybridising with a nucleic acid according to one of claims 1 to 8 under stringent conditions.

10. Nucleic acid according to one of claims 1 to 9, characterised in that the said non-selective cation channel OTRPC4 is a mammalian cation channel.

11. Nucleic acid according to one of claims 1 to 10, characterised in that the said non-selective cation channel OTRPC4 is murine.

12. Nucleic acid according to one of claims 1 to 11, characterised in that the said non-selective cation channel OTRPC4 is human.

13. Nucleic acid, characterised in that it contains the sequence

CTCTCACCGCCTACTACCAGCCGCTGGAGGGCACAATGGCGGATTCCAGCGAA
GGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCCGGGGATGAGAGTGG
CACCCCAGGTGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATCTGTTTGAGGG
GGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCC
AGGCGATGGGCGACCAAATCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGG
GGGTGCCCAACCCCATCGATCTGCTGGAGTCCACCCTATATGAGTCCTCGGTGG
TGCCTGGGCCCAAGAAAGCACCCATGGACTCACTGTTTGACTACGGCACCTATC
GTCACCACTCCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCA
GCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCGCCCCCCATCCTCAAAGTCTT
CAACCGGCCTATCCTCTTTGACATCGTGTCCCGGGGCTCCACTGCTGACCTGGA
CGGGCTGCTCCCATTCTTGCTGACCCACAAGAAACGCCTAACTGATGAGGAGTT
TCGAGAGCCATCTACGGGGAAGACCTGCCTGCCCAAGGCCTTGCTGAACCTGA
GCAATGGCCGCAACGACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACC
GGCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTGACATCTACTATCGAGGT
CAGACAGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACACTACGTGGAACT
TCTCGTGGCCCAGGGAGCTGATGTCCAcGCCCAGGCCCGTGGGCGCTTCTTCCA
GCCCAAGGATGAGGGGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCTGGC
TGCCTGCACCAACCAGCCCCACATTGTCAACTACCTGACGGAGAACCCCCACA
AGAAGGCGGACATGCGGCGCCAGGACTCGCGAGGCAACACAGTGCTGCATGC
GCTGGTGGCCATTGCTGACAACACCCGTGAGAACACCAAGTTTGTTACCAAGA
TGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCTCTTCCCCGACAGCAACCTGG
AGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTCATGATGGCTGCCAAGACG
GGCAAGATTGGGATCTTTCAGCACATCATCCGGCGGGAGGTGACGGATGAGGA
CACACGGCACCTGTCCCGCAAGTTCAAGGACTGGGCCTATGGGCCAGTGTATTC
CTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGGGGAAGAGGCCTCCGTGCT
GGAGATCCTGGTGTACAACAGCAAGATTGAGAACCGCCACGAGATGCTGGCTG

TGGAGCCCATCAATGAACTGCTGCGGGACAAGTGGCGCAAGTTCGGGGCCGTC
TCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATCTTCACTCTCA
CCGCCTACTACCAGCCGCTGGAGGGCACACCGCCGTACCCTTACCGCACCACG
GTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTG
TTCTTCTTCACCAACATCAAAGACTTGTTCATGAAGAAATGCCCTGGAGTGAAT
TCTCTCTTCATTGATGGCTCCTTCCAGCTGCTCTACTTCATCTACTCTGTCCTGGT
GATCGTCTCAGCAGCCCTCTACCTGGCAGGGATCGAGGCCTACCTGGCCGTGAT
GGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCCTTTACTTCACCCGTGGGCT
GAAGCTGACGGGGACCTATAGCATCATGATCCAGAAGATTCTCTTCAAGGACC
TTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGATCGGCTACGCTTCAGCCCT
GGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGTGTGCAATGAGGACCAGA
CCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTGACAGCGAGACCTTCAGCA
CCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGGGCGACCTGGAGATGC
TGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGTGACCTACATCA
TCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCGAGACAG
TGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCACC
ACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGC
TCTGGGGAGATGGTCACCGTGGGCAAGAGCTCGGACGGCACTCCTGACCGCAG
GTGGTGCTTCAGGGTGGATGAGGTGAACTGGTCTCACTGGAACCAGAACTTGG
GCATCATCAACGAGGACCCGGGCAAGAATGAGACCTACCAGTATTATGGCTTC
TCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGTCCTCGGTGGTACCCCGC
GTGGTGGAACTGAACAAGAACTCGAACCCGGACGAGGTGGTGGTGCCTCTGGA
CAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCAGGGTTACCCCCGCAAGT
GGAGGACTGAGGACGCCCCGCTCTAGGGACTGCAGCCCAGCCCCAGCTTCTCT
GCCCACTCATTTCTAGTCCAGCCGCATTTCAGCAGTGCCTTCTGGGGTGTCCCC
CCACACCCTGCTTTGGCCCCAGAGGCGAGGGACCAGTGGAGGTGCCAGGGAGG
CCCCAGGACCCTGTGGTCCCCTGGCTCTGCCTCCCCACCCTGGGGTGGGGGCTC
CCGGCCACCTGTCTTGCTCCTATGGAGTCACATAAGCCAACGCCAGAGCCCCTC
CACCTCAGGCCCCAGCCCCTGCCTCTCCATTATTTATTTGCTCTGCTCTCAGGAA
GCGACGTGACCCCTGCCCCAGCTGGAACCTGGCAGAGGCCTTAGGACCCCGTT
CCAAGTGCACTGCCCGGCCAAGCCCCAGCCTCAGCCTGCGCCTGAGCTGCATG
CGCCACCATTTTTGGCAGCGTGGCAGCTTTGCAAGGGGCTGGGGCCCTCGGCGT
GGGGCCATGCCTTCTGTGTGTTCTGTAGTGTCTGGGATTTGCCGGTGCTCAATA
AATGTTTATTCATTGACGGTGAAAAAAAAAAAAAAAAAA

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of nucleic acid on the basis of the degenerative code.

14. Nucleic acid, characterised in that it has the sequence
CTCTCACCGCCTACTACCAGCCGCTGGAGGGCACAATGGCGGATTCCAGCGAA
GGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCTCCCCGGGGATGAGAGTGG
CACCCCAGGTGGGGAGGCTTTTCCTCTCTCCTCCCTGGCCAATCTGTTTGAGGG
GGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGCCAGTCGCCCTGCTGGCCC
AGGCGATGGGCGACCAAATCTGCGCATGAAGTTCCAGGGCGCCTTCCGCAAGG
GGGTGCCCAACCCCATCGATCTGCTGGAGTCCACCCTATATGAGTCCTCGGTGG
TGCCTGGGCCCAAGAAAGCACCCATGGACTCACTGTTTGACTACGGCACCTATC
GTCACCACTCCAGTGACAACAAGAGGTGGAGGAAGAAGATCATAGAGAAGCA
GCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCGCCCCCCATCCTCAAAGTCTT
CAACCGGCCTATCCTCTTTGACATCGTGTCCCGGGGCTCCACTGCTGACCTGGA
CGGGCTGCTCCCATTCTTGCTGACCCACAAGAAACGCCTAACTGATGAGGAGTT
TCGAGAGCCATCTACGGGGAAGACCTGCCTGCCCAAGGCCTTGCTGAACCTGA
GCAATGGCCGCAACGACACCATCCCTGTGCTGCTGGACATCGCGGAGCGCACC
GGCAACATGCGGGAGTTCATTAACTCGCCCTTCCGTGACATCTACTATCGAGGT
CAGACAGCCCTGCACATCGCCATTGAGCGTCGCTGCAAACACTACGTGGAACT
TCTCGTGGCCCAGGGAGCTGATGTCCACGCCCAGGCCCGTGGGCGCTTCTTCCA
GCCCAAGGATGAGGGGGGCTACTTCTACTTTGGGGAGCTGCCCCTGTCGCTGGC
TGCCTGCACCAACCAGCCCCACATTGTCAACTACCTGACGGAGAACCCCCACA
AGAAGGCGGACATGCGGCGCCAGGACTCGCGAGGCAACACAGTGCTGCATGC
GCTGGTGGCCATTGCTGACAACACCCGTGAGAACACCAAGTTTGTTACCAAGA
TGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCTCTTCCCCGACAGCAACCTGG
AGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTCATGATGGCTGCCAAGACG
GGCAAGATTGGGATCTTTCAGCACATCATCCGGCGGGAGGTGACGGATGAGGA
CACACGGCACCTGTCCCGCAAGTTCAAGGACTGGGCCTATGGGCCAGTGTATTC
CTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGGGGAAGAGGCCTCCGTGCT
GGAGATCCTGGTGTACAACAGCAAGATTGAGAACCGCCACGAGATGCTGGCTG
TGGAGCCCATCAATGAACTGCTGCGGGACAAGTGGCGCAAGTTCGGGGCCGTC
TCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCCATGGTCATCTTCACTCTCA
CCGCCTACTACCAGCCGCTGGAGGGCACACCGCCGTACCCTTACCGCACCACG

GTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACGCTCTTCACTGGGGTCCTG
TTCTTCTTCACCAACATCAAAGACTTGTTCATGAAGAAATGCCCTGGAGTGAAT
TCTCTCTTCATTGATGGCTCCTTCCAGCTGCTCTACTTCATCTACTCTGTCCTGGT
GATCGTCTCAGCAGCCCTCTACCTGGCAGGGATCGAGGCCTACCTGGCCGTGAT
GGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCCTTTACTTCACCCGTGGGCT
GAAGCTGACGGGGACCTATAGCATCATGATCCAGAAGATTCTCTTCAAGGACC
TTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGATCGGCTACGCTTCAGCCCT
GGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGTGTGCAATGAGGACCAGA
CCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTGACAGCGAGACCTTCAGCA
CCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCATGGGCGACCTGGAGATGC
TGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCCTGCTGGTGACCTACATCA
TCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGCCCTCATGGGCGAGACAG
TGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGAAGCTGCAGTGGGCCACC
ACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCCTGAGGAAGGCCTTCCGC
TCTGGGGAGATGGTCACCGTGGGCAAGAGCTCGGACGGCACTCCTGACCGCAG
GTGGTGCTTCAGGGTGGATGAGGTGAACTGGTCTCACTGGAACCAGAACTTGG
GCATCATCAACGAGGACCCGGGCAAGAATGAGACCTACCAGTATTATGGCTTC
TCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGTCCTCGGTGGTACCCCGC
GTGGTGGAACTGAACAAGAACTCGAACCCGGACGAGGTGGTGGTGCCTCTGGA
CAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCAGGGTTACCCCCGCAAGT
GGAGGACTGAGGACGCCCCGCTCTAGGGACTGCAGCCCAGCCCCAGCTTCTCT
GCCCACTCATTTCTAGTCCAGCCGCATTTCAGCAGTGCCTTCTGGGGTGTCCCC
CCACACCCTGCTTTGGCCCCAGAGGCGAGGGACCAGTGGAGGTGCCAGGGAGG
CCCCAGGACCCTGTGGTCCCCTGGCTCTGCCTCCCCACCCTGGGGTGGGGGCTC
CCGGCCACCTGTCTTGCTCCTATGGAGTCACATAAGCCAACGCCAGAGCCCCTC
CACCTCAGGCCCCAGCCCCTGCCTCTCCATTATTTATTTGCTCTGCTCTCAGGAA
GCGACGTGACCCCTGCCCCAGCTGGAACCTGGCAGAGGCCTTAGGACCCCGTT
CCAAGTGCACTGCCCGGCCAAGCCCCAGCCTCAGCCTGCGCCTGAGCTGCATG
CGCCACCATTTTTGGCAGCGTGGCAGCTTTGCAAGGGGCTGGGGCCCTCGGCGT
GGGGCCATGCCTTCTGTGTGTTCTGTAGTGTCTGGGATTTGCCGGTGCTCAATA
AATGTTTATTCATTGACGGTGAAAAAAAAAAAAAAAAAA.

15. Nucleic acid, characterised in that it contains the sequence

ATGGCGGATTCCAGCGAAGGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCT
CCCCGGGGATGAGAGTGGCACCCCAGGTGGGGAGGCTTTCCTCTCTCCTCCCT
GGCCAATCTGTTTGAGGGGGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGC
CAGTCGCCCTGCTGGCCCAGGCGATGGGCGACCAAATCTGCGCATGAAGTTCC
AGGGCGCCTTCCGCAAGGGGGTGCCCAACCCCATCGATCTGCTGGAGTCCACC
CTATATGAGTCCTCGGTGGTGCCTGGGCCCAAGAAAGCACCCATGGACTCACT
GTTTGACTACGGCACCTATCGTCACCACTCCAGTGACAACAAGAGGTGGAGGA
AGAAGATCATAGAGAAGCAGCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCG
CCCCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTTGACATCGTGTCCCGG
GGCTCCACTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGACCCACAAGAAA
CGCCTAACTGATGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTGCCTGCC
CAAGGCCTTGCTGAACCTGAGCAATGGCCGCAACGACACCATCCCTGTGCTGCT
GGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACTCGCCCTTCC
GTGACATCTACTATCGAGGTCAGACAGCCCTGCACATCGCCATTGAGCGTCGCT
GCAAACACTACGTGGAACTTCTCGTGGCCCAGGGAGCTGATGTCCAcGCCCAGG
CCCGTGGGCGCTTCTTCCAGCCCAAGGATGAGGGGGGCTACTTCTACTTTGGGG
AGCTGCCCCTGTCGCTGGCTGCCTGCACCAACCAGCCCCACATTGTCAACTACC
TGACGGAGAACCCCCACAAGAAGGCGGACATGCGGCGCCAGGACTCGCGAGG
CAACACAGTGCTGCATGCGCTGGTGGCCATTGCTGACAACACCCGTGAGAACA
CCAAGTTTGTTACCAAGATGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCTCT
TCCCCGACAGCAACCTGGAGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTC
ATGATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAGCACATCATCCGGCG
GGAGGTGACGGATGAGGACACACGGCACCTGTCCCGCAAGTTCAAGGACTGGG
CCTATGGGCCAGTGTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGG
GGAAGAGGCCTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATTGAGAACC
GCCACGAGATGCTGGCTGTGGAGCCCATCAATGAACTGCTGCGGGACAAGTGG
CGCAAGTTCGGGGCCGTCTCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCC
ATGGTCATCTTCACTCTCACCGCCTACTACCAGCCGCTGGAGGGCACACCGCCG
TACCCTTACCGCACCACGGTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACG
CTCTTCACTGGGGTCCTGTTCTTCTTCACCAACATCAAAGACTTGTTCATGAAG
AAATGCCCTGGAGTGAATTCTCTCTTCATTGATGGCTCCTTCCAGCTGCTCTACT
TCATCTACTCTGTCCTGGTGATCGTCTCAGCAGCCCTCTACCTGGCAGGGATCG
AGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCC
TTTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTATAGCATCATGATCCAGA

AGATTCTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGAT
CGGCTACGCTTCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGT
GTGCAATGAGGACCAGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTG
ACAGCGAGACCTTCAGCACCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCA
TGGGCGACCTGGAGATGCTGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCC
TGCTGGTGACCTACATCATCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGC
CCTCATGGGCGAGACAGTGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGA
AGCTGCAGTGGGCCACCACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCC
TGAGGAAGGCCTTCCGCTCTGGGGAGATGGTCACCGTGGGCAAGAGCTCGGAC
GGCACTCCTGACCGCAGGTGGTGCTTCAGGGTGGATGAGGTGAACTGGTCTCA
CTGGAACCAGAACTTGGGCATCATCAACGAGGACCCGGGCAAGAATGAGACCT
ACCAGTATTATGGCTTCTCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGT
CCTCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAACTCGAACCCGGACGAG
GTGGTGGTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCA
GGGTTACCCCCGCAAGTGGAGGACTGAGGACGCCCCGCTCTAG

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of nucleic acid on the basis of the degenerative code.

16. Nucleic acid, characterised in that it has the sequence

ATGGCGGATTCCAGCGAAGGCCCCCGCGCGGGGCCCGGGGAGGTGGCTGAGCT
CCCCGGGGATGAGAGTGGCACCCCAGGTGGGGAGGCTTTTCCTCTCTCCTCCCT
GGCCAATCTGTTTGAGGGGGAGGATGGCTCCCTTTCGCCCTCACCGGCTGATGC
CAGTCGCCCTGCTGGCCCAGGCGATGGGCGACCAAATCTGCGCATGAAGTTCC
AGGGCGCCTTCCGCAAGGGGGTGCCCAACCCCATCGATCTGCTGGAGTCCACC
CTATATGAGTCCTCGGTGGTGCCTGGGCCCAAGAAAGCACCCATGGACTCACT
GTTTGACTACGGCACCTATCGTCACCACTCCAGTGACAACAAGAGGTGGAGGA
AGAAGATCATAGAGAAGCAGCCGCAGAGCCCCAAAGCCCCTGCCCCTCAGCCG
CCCCCCATCCTCAAAGTCTTCAACCGGCCTATCCTCTTTGACATCGTGTCCCGG
GGCTCCACTGCTGACCTGGACGGGCTGCTCCCATTCTTGCTGACCCACAAGAAA
CGCCTAACTGATGAGGAGTTTCGAGAGCCATCTACGGGGAAGACCTGCCTGCC
CAAGGCCTTGCTGAACCTGAGCAATGGCCGCAACGACACCATCCCTGTGCTGCT
GGACATCGCGGAGCGCACCGGCAACATGCGGGAGTTCATTAACTCGCCCTTCC
GTGACATCTACTATCGAGGTCAGACAGCCCTGCACATCGCCATTGAGCGTCGCT

GCAAACACTACGTGGAACTTCTCGTGGCCCAGGGAGCTGATGTCCAcGCCCAGG
CCCGTGGGCGCTTCTTCCAGCCCAAGGATGAGGGGGCTACTTCTACTTTGGGG
AGCTGCCCCTGTCGCTGGCTGCCTGCACCAACCAGCCCCACATTGTCAACTACC
TGACGGAGAACCCCCACAAGAAGGCGGACATGCGGCGCCAGGACTCGCGAGG
CAACACAGTGCTGCATGCGCTGGTGGCCATTGCTGACAACACCCGTGAGAACA
CCAAGTTTGTTACCAAGATGTACGACCTGCTGCTGCTCAAGTGTGCCCGCCTCT
TCCCCGACAGCAACCTGGAGGCCGTGCTCAACAACGACGGCCTCTCGCCCCTC
ATGATGGCTGCCAAGACGGGCAAGATTGGGATCTTTCAGCACATCATCCGGCG
GGAGGTGACGGATGAGGACACACGGCACCTGTCCCGCAAGTTCAAGGACTGGG
CCTATGGGCCAGTGTATTCCTCGCTTTATGACCTCTCCTCCCTGGACACGTGTGG
GGAAGAGGCCTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATTGAGAACC
GCCACGAGATGCTGGCTGTGGAGCCCATCAATGAACTGCTGCGGGACAAGTGG
CGCAAGTTCGGGGCCGTCTCCTTCTACATCAACGTGGTCTCCTACCTGTGTGCC
ATGGTCATCTTCACTCTCACCGCCTACTACCAGCCGCTGGAGGGCACACCGCCG
TACCCTTACCGCACCACGGTGGACTACCTGCGGCTGGCTGGCGAGGTCATTACG
CTCTTCACTGGGGTCCTGTTCTTCTTCACCAACATCAAAGACTTGTTCATGAAG
AAATGCCCTGGAGTGAATTCTCTCTTCATTGATGGCTCCTTCCAGCTGCTCTACT
TCATCTACTCTGTCCTGGTGATCGTCTCAGCAGCCCTCTACCTGGCAGGGATCG
AGGCCTACCTGGCCGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCCC
TTTACTTCACCCGTGGGCTGAAGCTGACGGGGACCTATAGCATCATGATCCAGA
AGATTCTCTTCAAGGACCTTTTCCGATTCCTGCTCGTCTACTTGCTCTTCATGAT
CGGCTACGCTTCAGCCCTGGTCTCCCTCCTGAACCCGTGTGCCAACATGAAGGT
GTGCAATGAGGACCAGACCAACTGCACAGTGCCCACTTACCCCTCGTGCCGTG
ACAGCGAGACCTTCAGCACCTTCCTCCTGGACCTGTTTAAGCTGACCATCGGCA
TGGGCGACCTGGAGATGCTGAGCAGCACCAAGTACCCCGTGGTCTTCATCATCC
TGCTGGTGACCTACATCATCCTCACCTTTGTGCTGCTCCTCAACATGCTCATTGC
CCTCATGGGCGAGACAGTGGGCCAGGTCTCCAAGGAGAGCAAGCACATCTGGA
AGCTGCAGTGGGCCACCACCATCCTGGACATTGAGCGCTCCTTCCCCGTATTCC
TGAGGAAGGCCTTCCGCTCTGGGGAGATGGTCACCGTGGGCAAGAGCTCGGAC
GGCACTCCTGACCGCAGGTGGTGCTTCAGGGTGGATGAGGTGAACTGGTCTCA
CTGGAACCAGAACTTGGGCATCATCAACGAGGACCCGGGCAAGAATGAGACCT
ACCAGTATTATGGCTTCTCGCATACCGTGGGCCGCCTCCGCAGGGATCGCTGGT
CCTCGGTGGTACCCCGCGTGGTGGAACTGAACAAGAACTCGAACCCGGACGAG

GTGGTGGTGCCTCTGGACAGCATGGGGAACCCCCGCTGCGATGGCCACCAGCA GGGTTACCCCCGCAAGTGGAGGACTGAGGACGCCCCGCTCTAG.

17. Nucleic acid, characterised in that it comprises the sequence GGCCACGCGTCGACTAGTACGGGGGGGGGGGGGGGGTGGCRGSRGGAKCAG GACTCGGCCGGAGGGATCAGGAAGCGGCGGCTGCGCCCGCGTCCTGAGGCT GAGAAGTACAAACAGATCTGGGTCCAGTATGGCAGATCCTGGTGATGGTCCCC GTGCAGCGCCTGGGGAGGTGGCTGAGCCCCCTGGAGATGAGAGTGGTACCTCT GGTGGGGAGGCCTTCCCCCTCTCTTCCCTGGCCAATCTGTTTGAGGGGGAGGAA GGCTCCTCTTCTCTTTCCCCGGTGGATGCTAGCCGCCCTGCTGGCCCTGGCGAT GGACGTCCAAACCTGCGTATGAAGTTCCAGGGCGCTTTCCGCAAGGGGGTTCC CAACCCCATTGACCTGTTGGAGTCCACCCGGTACGAGTCCTCAGTAGTGCCTGG GCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTACGGCACTTACCGTCACCA CCCCAGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAGAAGCAGCCACAG AGCCCCAAAGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCTTCAATCGG CCCATCCTCTTTGACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGACTG CTCTCCTTCTTGTTGACCCACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAG CCGTCCACGGGGAAGACCTGCCTGCCCAAGGCGCTGCTGAACCTAAGCAACGG GCGCAACGACACCATCCCGGTGTTGCTGGACATTGCGGAGCGCACCGGCAACA TGCGTGAATTCATCAACTCGCCCTTCAGAGACATCTACTACCGAGGCCAGACAT CCCTGCACATTGCCATCGAACGGCGCTGCAAGCACTACGTGGAGCTGCTGGTG GCCCAGGGAGCCGACGTGCACGCCCAGGCCCGCGGCCGCTTCTTCCAGCCCAA GGATGAGGGAGGCTACTTCTACTTTGGGGAGCTGCCCTTGTCCCTGGCAGCCTG CACCAACCAGCCGCACATCGTCAACTACCTGACAGAGAACCCTCACAAGAAAG CTGACATGAGGCGACAGGACTCGAGGGGGAACACGGTGCTGCACGCGCTGGTG GCCATCGCCGACAACACCCGAGAGAACACCAAGTTTGTCACCAAGATGTACGA CCTGCTGCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAACCTGGAGACAGT TCTCAACAATGATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACAGGCAAGAT CGGGGTCTTTCAGCACATCATCCGACGTGAGGTGACAGATGAGGACACCCGGC ATCTGTCTCGCAAGTTCAAGGACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTA CGACCTCTCCTCCCTGGACACATGCGGGGAGGAGGTGTCCGTGCTGGAGATCCT GGTGTACAACAGCAAGATCGAGAACCGCCATGAGATGCTGGCTGTAGAGCCCA TTAACGAACTGTTGAGAGACAAGTGGCGTAAGTTTGGGGCTGTGTCCTTCTACA TCAACGTGGTCTCCTATCTGTGTGCCATGGTCATCTTCACCCTCACCGCCTACTA

TCAGCCACTGGAGGGCACGCCACCCTACCCTTACCGGACCACAGTGGACTACC
TGAGGCTGGCTGGCGAGGTCATCACGCTCTTCACAGGAGTCCTGTTCTTCTTTA
CCAGTATCAAAGACTTGTTCACGAAGAAATGCCCTGGAGTGAATTCTCTCTTCG
TCGATGGCTCCTTCCAGTTACTCTACTTCATCTACTCTGTGCTGGTGGTTGTCTC
TGCGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGGCTGTGATGGTCTTTGC
CCTGGTCCTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGGTTGAAGCTGAC
GGGGACCTACAGCATCATGATTCAGAAGATCCTCTTCAAAGACCTCTTCCGCTT
CCTGCTTGTGTACCTGCTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCCTC
CTGAATCCGTGCACCAACATGAAGGTCTGTGACGAGGACCAGAGCAACTGCAC
GGTGCCCACGTATCCTGCGTGCCGCGACAGCGAGACCTTCAGCGCCTTCCTCCT
GGACCTCTTCAAGCTCACCATCGGCATGGGAGACCTGGAGATGCTGAGCAGCG
CCAAGTACCCCGTGGTCTTCATCCTCCTGCTGGTCACCTACATCATCCTCACCTT
CGTGCTCCTGTTGAACATGCTTATCGCCCTCATGGGTGAGACCGTGGGCCAGGT
GTCCAAGGAGAGCAAGCACATCTGGAAGTTGCAGTGGGCCACCACCATCCTGG
ACATCGAGCGTTCCTTCCCTGTGTTCCTGAGGAAGGCCTTCCGCTCCGGAGAGA
TGGTGACTGTGGGCAAGAGCTCAGATGGCACTCCGGACCGCAGGTGGTGCTTC
AGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATTAA
CGAGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCTTCTCCCACACCGT
GGGGCGCCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTAGTGGAGCT
GAACAAGAACTCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTAGGGA
ACCCCAACTGTGACGGCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGAC
GATGCCCCACTGTAGGGGCCGTGCCAGAGCTCGCACAGATAGTCCAGGCTTGG
CCTTCGCTCCCACCTACATTTAGGCATTTGTCCGGTGTCTTCCCACACCCGCATG
GGACCTTGGAGGTGAGGGCCTCTGTGGCGACTCTGTGGAGGCCCCAGGACCCT
CTGGTCCCCGCCAAGACTTTTGCCTTCAGCTCTACTCCCCACATGGGGGGGCGG
GGCTCCTGGCTACCTGTCTCGCTCGCTCCCATGGAGTCACCTAAGCCAGCACAA
GGCCCCTCTCCTCGAAAGGCTCAGGCCCCATCCCTCTTGTGTATTATTTATTGCT
CTCCTCAGGAAAATGGGGTGGCAGGAGTCCACCCGCGGCTGGAACCTGGCCAG
GGCTGAAGCTCATGCAGGGACGCTGCAGCTCCGACCTGCCACAGATCTGACCT
GCTGCAGCCCTGGCTAGTGTGGGTCTTCTGTACTTTGAAGAGATCGGGGCCGCT
GGTGCTCAATAAATGTTTATTCTCGGTGGAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of the nucleic acid on the basis of the degenerative code, wherein R may be an A or G, M may be an A or C, S may be a C or G, Y may be a C or T, K may be a G or T and W may be an A or T.

18. Nucleic acid, characterised in that it has the sequence
GGCCACGCGTCGACTAGTACGGGGGGGGGGGGGGGTGGCRGSRGGAKCAG
GACTCGGCCGGAGGGATCAGGAAGCGGCGGCGCTGCGCCCGCGTCCTGAGGCT
GAGAAGTACAAACAGATCTGGGTCCAGTATGGCAGATCCTGGTGATGGTCCCC
GTGCAGCGCCTGGGGAGGTGGCTGAGCCCCCTGGAGATGAGAGTGGTACCTCT
GGTGGGGAGGCCTTCCCCCTCTCTTCCCTGGCCAATCTGTTTGAGGGGGAGGAA
GGCTCCTCTTCTCTTTCCCCGGTGGATGCTAGCCGCCCTGCTGGCCCTGGCGAT
GGACGTCCAAACCTGCGTATGAAGTTCCAGGGCGCTTTCCGCAAGGGGGTTCC
CAACCCCATTGACCTGTTGGAGTCCACCCGGTACGAGTCCTCAGTAGTGCCTGG
GCCCAAGAAAGCGCCCATGGATTCCTTGTTCGACTACGGCACTTACCGTCACCA
CCCCAGTGACAACAAGAGATGGAGGAGAAAGGTCGTGGAGAAGCAGCCACAG
AGCCCCAAAGCTCCTGCACCCCAGCCACCCCCCATCCTCAAAGTCTTCAATCGG
CCCATCCTCTTTGACATTGTGTCCCGGGGCTCCACTGCGGACCTAGATGGACTG
CTCTCCTTCTTGTTGACCCACAAGAAGCGCCTGACTGATGAGGAGTTCCGGGAG
CCGTCCACGGGGAAGACCTGCCTGCCCAAGGCGCTGCTGAACCTAAGCAACGG
GCGCAACGACACCATCCCGGTGTTGCTGGACATTGCGGAGCGCACCGGCAACA
TGCGTGAATTCATCAACTCGCCCTTCAGAGACATCTACTACCGAGGCCAGACAT
CCCTGCACATTGCCATCGAACGGCGCTGCAAGCACTACGTGGAGCTGCTGGTG
GCCCAGGGAGCCGACGTGCACGCCCAGGCCCGCGGCCGCTTCTTCCAGCCCAA
GGATGAGGGAGGCTACTTCTACTTTGGGGAGCTGCCCTTGTCCCTGGCAGCCTG
CACCAACCAGCCGCACATCGTCAACTACCTGACAGAGAACCCTCACAAGAAAG
CTGACATGAGGCGACAGGACTCGAGGGGGAACACGGTGCTGCACGCGCTGGTG
GCCATCGCCGACAACACCCGAGAGAACACCAAGTTTGTCACCAAGATGTACGA
CCTGCTGCTTCTCAAGTGTTCACGCCTCTTCCCCGACAGCAACCTGGAGACAGT
TCTCAACAATGATGGCCTTTCGCCTCTCATGATGGCTGCCAAGACAGGCAAGAT
CGGGGTCTTTCAGCACATCATCCGACGTGAGGTGACAGATGAGGACACCCGGC
ATCTGTCTCGCAAGTTCAAGGACTGGGCCTATGGGCCTGTGTATTCTTCTCTCTA
CGACCTCTCCTCCCTGGACACATGCGGGGAGGAGGTGTCCGTGCTGGAGATCCT

GGTGTACAACAGCAAGATCGAGAACCGCCATGAGATGCTGGCTGTAGAGCCCA
TTAACGAACTGTTGAGAGACAAGTGGCGTAAGTTTGGGGCTGTGTCCTTCTACA
TCAACGTGGTCTCCTATCTGTGTGCCATGGTCATCTTCACCCTCACCGCCTACTA
TCAGCCACTGGAGGGCACGCCACCCTACCCTTACCGGACCACAGTGGACTACC
TGAGGCTGGCTGGCGAGGTCATCACGCTCTTCACAGGAGTCCTGTTCTTCTTTA
CCAGTATCAAAGACTTGTTCACGAAGAAATGCCCTGGAGTGAATTCTCTCTTCG
TCGATGGCTCCTTCCAGTTACTCTACTTCATCTACTCTGTGCTGGTGGTTGTCTC
TGCGGCGCTCTACCTGGCTGGGATCGAGGCCTACCTGGCTGTGATGGTCTTTGC
CCTGGTCCTGGGCTGGATGAATGCGCTGTACTTCACGCGCGGGTTGAAGCTGAC
GGGGACCTACAGCATCATGATTCAGAAGATCCTCTTCAAAGACCTCTTCCGCTT
CCTGCTTGTGTACCTGCTCTTCATGATCGGCTATGCCTCAGCCCTGGTCACCCTC
CTGAATCCGTGCACCAACATGAAGGTCTGTGACGAGGACCAGAGCAACTGCAC
GGTGCCCACGTATCCTGCGTGCCGCGACAGCGAGACCTTCAGCGCCTTCCTCCT
GGACCTCTTCAAGCTCACCATCGGCATGGGAGACCTGGAGATGCTGAGCAGCG
CCAAGTACCCCGTGGTCTTCATCCTCCTGCTGGTCACCTACATCATCCTCACCTT
CGTGCTCCTGTTGAACATGCTTATCGCCCTCATGGGTGAGACCGTGGGCCAGGT
GTCCAAGGAGAGCAAGCACATCTGGAAGTTGCAGTGGGCCACCACCATCCTGG
ACATCGAGCGTTCCTTCCCTGTGTTCCTGAGGAAGGCCTTCCGCTCCGGAGAGA
TGGTGACTGTGGGCAAGAGCTCAGATGGCACTCCGGACCGCAGGTGGTGCTTC
AGGGTGGACGAGGTGAACTGGTCTCACTGGAACCAGAACTTGGGCATCATTAA
CGAGGACCCTGGCAAGAGTGAAATCTACCAGTACTATGGCTTCTCCCACACCGT
GGGGCGCCTTCGTAGGGATCGTTGGTCCTCGGTGGTGCCCCGCGTAGTGGAGCT
GAACAAGAACTCAAGCGCAGATGAAGTGGTGGTACCCCTGGATAACCTAGGGA
ACCCCAACTGTGACGGCCACCAGCAGGGCTACGCTCCCAAGTGGAGGACGGAC
GATGCCCCACTGTAGGGGCCGTGCCAGAGCTCGCACAGATAGTCCAGGCTTGG
CCTTCGCTCCCACCTACATTTAGGCATTTGTCCGGTGTCTTCCCACACCCGCATG
GGACCTTGGAGGTGAGGGCCTCTGTGGCGACTCTGTGGAGGCCCCAGGACCCT
CTGGTCCCCGCCAAGACTTTTGCCTTCAGCTCTACTCCCCACATGGGGGGGCGG
GGCTCCTGGCTACCTGTCTCGCTCGCTCCCATGGAGTCACCTAAGCCAGCACAA
GGCCCCTCTCCTCGAAAGGCTCAGGCCCCATCCCTCTTGTGTATTATTTATTGCT
CTCCTCAGGAAAATGGGGTGGCAGGAGTCCACCCGCGGCTGGAACCTGGCCAG
GGCTGAAGCTCATGCAGGGACGCTGCAGCTCCGACCTGCCACAGATCTGACCT
GCTGCAGCCCTGGCTAGTGTGGGTCTTCTGTACTTTGAAGAGATCGGGGCCGCT
GGTGCTCAATAAATGTTTATTCTCGGTGGAAAAAAAAAAAAAAAAAAAAAAA

AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AA,
wherein R may be an A or G, M may be an A or C, S may be a C or G, Y may be a C or T, K may be a G or T and W may be an A or T.

19. Nucleic acid, characterised in that it contains the sequence
ATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGGGAGGTGGCTGAGCC
CCCTGGAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCCTCTCTTCCCT
GGCCAATCTGTTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTGGATGC
TAGCCGCCCTGCTGGCCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCCA
GGGCGCTTTCCGCAAGGGGGTTCCCAACCCCATTGACCTGTTGGAGTCCACCCG
GTACGAGTCCTCAGTAGTGCCTGGGCCCAAGAAAGCGCCCATGGATTCCTTGTT
CGACTACGGCACTTACCGTCACCACCCCAGTGACAACAAGAGATGGAGGAGAA
AGGTCGTGGAGAAGCAGCCACAGAGCCCCAAAGCTCCTGCACCCCAGCCACCC
CCCATCCTCAAAGTCTTCAATCGGCCCATCCTCTTTGACATTGTGTCCCGGGGCT
CCACTGCGGACCTAGATGGACTGCTCTCCTTCTTGTTGACCCACAAGAAGCGCC
TGACTGATGAGGAGTTCCGGGAGCCGTCCACGGGGAAGACCTGCCTGCCCAAG
GCGCTGCTGAACCTAAGCAACGGGCGCAACGACACCATCCCGGTGTTGCTGGA
CATTGCGGAGCGCACCGGCAACATGCGTGAATTCATCAACTCGCCCTTCAGAG
ACATCTACTACCGAGGCCAGACATCCCTGCACATTGCCATCGAACGGCGCTGC
AAGCACTACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTGCACGCCCAGGC
CCGCGGCCGCTTCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACTTTGGGGA
GCTGCCCTTGTCCCTGGCAGCCTGCACCAACCAGCCGCACATCGTCAACTACCT
GACAGAGAACCCTCACAAGAAAGCTGACATGAGGCGACAGGACTCGAGGGGG
AACACGGTGCTGCACGCGCTGGTGGCCATCGCCGACAACACCCGAGAGAACAC
CAAGTTTGTCACCAAGATGTACGACCTGCTGCTTCTCAAGTGTTCACGCCTCTT
CCCCGACAGCAACCTGGAGACAGTTCTCAACAATGATGGCCTTTCGCCTCTCAT
GATGGCTGCCAAGACAGGCAAGATCGGGGTCTTTCAGCACATCATCCGACGTG
AGGTGACAGATGAGGACACCCGGCATCTGTCTCGCAAGTTCAAGGACTGGGCC
TATGGGCCTGTGTATTCTTCTCTCTACGACCTCTCCTCCCTGGACACATGCGGGG
AGGAGGTGTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATCGAGAACCGC
CATGAGATGCTGGCTGTAGAGCCCATTAACGAACTGTTGAGAGACAAGTGGCG
TAAGTTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCCTATCTGTGTGCCATG
GTCATCTTCACCCTCACCGCCTACTATCAGCCACTGGAGGGCACGCCACCCTAC

CCTTACCGGACCACAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATCACGCT
CTTCACAGGAGTCCTGTTCTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAA
ATGCCCTGGAGTGAATTCTCTCTTCGTCGATGGCTCCTTCCAGTTACTCTACTTC
ATCTACTCTGTGCTGGTGGTTGTCTCTGCGGCGCTCTACCTGGCTGGGATCGAG
GCCTACCTGGCTGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCGCTG
TACTTCACGCGCGGGTTGAAGCTGACGGGGACCTACAGCATCATGATTCAGAA
GATCCTCTTCAAAGACCTCTTCCGCTTCCTGCTTGTGTACCTGCTCTTCATGATC
GGCTATGCCTCAGCCCTGGTCACCCTCCTGAATCCGTGCACCAACATGAAGGTC
TGTGACGAGGACCAGAGCAACTGCACGGTGCCCACGTATCCTGCGTGCCGCGA
CAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCTTCAAGCTCACCATCGGCAT
GGGAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGTGGTCTTCATCCTCCT
GCTGGTCACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACATGCTTATCGCC
CTCATGGGTGAGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATCTGGAA
GTTGCAGTGGGCCACCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCT
GAGGAAGGCCTTCCGCTCCGGAGAGATGGTGACTGTGGGCAAGAGCTCAGATG
GCACTCCGGACCGCAGGTGGTGCTTCAGGGTGGACGAGGTGAACTGGTCTCAC
TGGAACCAGAACTTGGGCATCATTAACGAGGACCCTGGCAAGAGTGAAATCTA
CCAGTACTATGGCTTCTCCCACACCGTGGGGCGCCTTCGTAGGGATCGTTGGTC
CTCGGTGGTGCCCCGCGTAGTGGAGCTGAACAAGAACTCAAGCGCAGATGAAG
TGGTGGTACCCCTGGATAACCTAGGGAACCCCAACTGTGACGGCCACCAGCAG
GGCTACGCTCCCAAGTGGAGGACGGACGATGCCCCACTGTAG

or a partial sequence thereof, a nucleic acid which is capable of hybridising with said sequence under stringent conditions, an allelic variant or a functional variant of said sequence or a variant of the nucleic acid on the basis of the degenerative code.

20. Nucleic acid, characterised in that it has the sequence

ATGGCAGATCCTGGTGATGGTCCCCGTGCAGCGCCTGGGGAGGTGGCTGAGCC
CCCTGGAGATGAGAGTGGTACCTCTGGTGGGGAGGCCTTCCCCCTCTCTTCCCT
GGCCAATCTGTTTGAGGGGGAGGAAGGCTCCTCTTCTCTTTCCCCGGTGGATGC
TAGCCGCCCTGCTGGCCCTGGCGATGGACGTCCAAACCTGCGTATGAAGTTCCA
GGGCGCTTTCCGCAAGGGGGTTCCCAACCCCATTGACCTGTTGGAGTCCACCCG
GTACGAGTCCTCAGTAGTGCCTGGGCCCAAGAAAGCGCCCATGGATTCCTTGTT
CGACTACGGCACTTACCGTCACCACCCCAGTGACAACAAGAGATGGAGGAGAA
AGGTCGTGGAGAAGCAGCCACAGAGCCCCAAAGCTCCTGCACCCCAGCCACCC

CCCATCCTCAAAGTCTTCAATCGGCCCATCCTCTTTGACATTGTGTCCCGGGGCT
CCACTGCGGACCTAGATGGACTGCTCTCCTTCTTGTTGACCCACAAGAAGCGCC
TGACTGATGAGGAGTTCCGGGAGCCGTCCACGGGGAAGACCTGCCTGCCCAAG
GCGCTGCTGAACCTAAGCAACGGGCGCAACGACACCATCCCGGTGTTGCTGGA
CATTGCGGAGCGCACCGGCAACATGCGTGAATTCATCAACTCGCCCTTCAGAG
ACATCTACTACCGAGGCCAGACATCCCTGCACATTGCCATCGAACGGCGCTGC
AAGCACTACGTGGAGCTGCTGGTGGCCCAGGGAGCCGACGTGCACGCCCAGGC
CCGCGGCCGCTTCTTCCAGCCCAAGGATGAGGGAGGCTACTTCTACTTTGGGGA
GCTGCCCTTGTCCCTGGCAGCCTGCACCAACCAGCCGCACATCGTCAACTACCT
GACAGAGAACCCTCACAAGAAAGCTGACATGAGGCGACAGGACTCGAGGGGG
AACACGGTGCTGCACGCGCTGGTGGCCATCGCCGACAACACCCGAGAGAACAC
CAAGTTTGTCACCAAGATGTACGACCTGCTGCTTCTCAAGTGTTCACGCCTCTT
CCCCGACAGCAACCTGGAGACAGTTCTCAACAATGATGGCCTTTCGCCTCTCAT
GATGGCTGCCAAGACAGGCAAGATCGGGGTCTTTCAGCACATCATCCGACGTG
AGGTGACAGATGAGGACACCCGGCATCTGTCTCGCAAGTTCAAGGACTGGGCC
TATGGGCCTGTGTATTCTTCTCTCTACGACCTCTCCTCCCTGGACACATGCGGGG
AGGAGGTGTCCGTGCTGGAGATCCTGGTGTACAACAGCAAGATCGAGAACCGC
CATGAGATGCTGGCTGTAGAGCCCATTAACGAACTGTTGAGAGACAAGTGGCG
TAAGTTTGGGGCTGTGTCCTTCTACATCAACGTGGTCTCCTATCTGTGTGCCATG
GTCATCTTCACCCTCACCGCCTACTATCAGCCACTGGAGGGCACGCCACCCTAC
CCTTACCGGACCACAGTGGACTACCTGAGGCTGGCTGGCGAGGTCATCACGCT
CTTCACAGGAGTCCTGTTCTTCTTTACCAGTATCAAAGACTTGTTCACGAAGAA
ATGCCCTGGAGTGAATTCTCTCTTCGTCGATGGCTCCTTCCAGTTACTCTACTTC
ATCTACTCTGTGCTGGTGGTTGTCTCTGCGGCGCTCTACCTGGCTGGGATCGAG
GCCTACCTGGCTGTGATGGTCTTTGCCCTGGTCCTGGGCTGGATGAATGCGCTG
TACTTCACGCGCGGGTTGAAGCTGACGGGGACCTACAGCATCATGATTCAGAA
GATCCTCTTCAAAGACCTCTTCCGCTTCCTGCTTGTGTACCTGCTCTTCATGATC
GGCTATGCCTCAGCCCTGGTCACCCTCCTGAATCCGTGCACCAACATGAAGGTC
TGTGACGAGGACCAGAGCAACTGCACGGTGCCCACGTATCCTGCGTGCCGCGA
CAGCGAGACCTTCAGCGCCTTCCTCCTGGACCTCTTCAAGCTCACCATCGGCAT
GGGAGACCTGGAGATGCTGAGCAGCGCCAAGTACCCCGTGGTCTTCATCCTCCT
GCTGGTCACCTACATCATCCTCACCTTCGTGCTCCTGTTGAACATGCTTATCGCC
CTCATGGGTGAGACCGTGGGCCAGGTGTCCAAGGAGAGCAAGCACATCTGGAA
GTTGCAGTGGGCCACCACCATCCTGGACATCGAGCGTTCCTTCCCTGTGTTCCT

GAGGAAGGCCTTCCGCTCCGGAGAGATGGTGACTGTGGGCAAGAGCTCAGATG
GCACTCCGGACCGCAGGTGGTGCTTCAGGGTGGACGAGGTGAACTGGTCTCAC
TGGAACCAGAACTTGGGCATCATTAACGAGGACCCTGGCAAGAGTGAAATCTA
CCAGTACTATGGCTTCTCCCACACCGTGGGGCGCCTTCGTAGGGATCGTTGGTC
CTCGGTGGTGCCCCGCGTAGTGGAGCTGAACAAGAACTCAAGCGCAGATGAAG
TGGTGGTACCCCTGGATAACCTAGGGAACCCCAACTGTGACGGCCACCAGCAG
GGCTACGCTCCCAAGTGGAGGACGGACGATGCCCCACTGTAG.

21. Recombinant vector, characterised in that it contains a nucleic acid according to one of claims 1 to 20.
22. Recombinant vector according to claim 21, characterised in that it is an expression vector.
23. Host, characterised in that it contains a vector according to claim 21 or 22.
24. Host according to claim 23, characterised in that it is a eukaryotic host cell.
25. Host according to claim 23 or 24, characterised in that it is an insect cell.
26. Host according to one of claims 23 to 25, characterised in that it is an Sf9-, HEK293- or HeLa-cell.
27. Host according to claim 23, characterised in that it is a bacteriophage.
28. Host according to claim 23, characterised in that it is a prokaryotic host cell.
29. Polypeptide, characterised in that it is coded by a nucleic acid according to one of claims 1 to 20 or a fragment, a functional variant, an allelic variant, a subunit, a variant on the basis of the degenerative nucleic acid code, a chemical derivative thereof, a fusion protein with said polypeptide or a glycosylation variant thereof.
30. Polypeptide according to claim 29, characterised in that it is a fragment of the nonselective cation channel OTRPC4.
31. Polypeptide according to one of claims 29 and 30, characterised in that it is a functional variant of the nonselective cation channel OTRPC4.
32. Polypeptide according to one of claims 29 to 31, characterised in that it is an allelic variant of the nonselective cation channel OTRPC4.
33. Polypeptide according to one of claims 29 to 32, characterised in that it is a subunit of the nonselective cation channel OTRPC4.

34. Polypeptide according to one of claims 29 to 33, characterised in that it is a variant of the nonselective cation channel OTRPC4 on the basis of the degenerative nucleic acid code.

35. Polypeptide according to one of claims 29 to 34, characterised in that it is a chemical derivative of the nonselective cation channel OTRPC4.

36. Polypeptide according to one of claims 29 to 35, characterised in that it is a fusion protein consisting of the nonselective cation channel OTRPC4 and another protein.

37. Polypeptide according to one of claims 29 to 36, characterised in that it is a glycosylation variant of the nonselective cation channel OTRPC4.

38. Process for preparing polypeptides according to one of claims 29 to 37, characterised in that a host according to one of claims 23 to 28 is cultivated and said polypeptide is isolated.

39. Antibody protein, characterised in that it is specific for a polypeptide according to one of claims 29 to 37.

40. Process for preparing an antibody protein according to claim 39, characterised in that it comprises the following steps: a host selected from a eukaryotic or prokaryotic cell which contains one or more vectors having one or more nucleic acids specific for the antibody protein, is cultivated under conditions under which said antibody protein is expressed by said host cell and said antibody protein is isolated.

41. Use of a polypeptide according to one of claims 29 to 37 for finding blockers, activators or modulators of said polypeptides.

42. Use of a host according to one of claims 23 to 28 for finding blockers, activators or modulators of OTRPC4 channels.

43. Process for finding blockers, activators or modulators of OTRPC4, characterised in that a host according to one of claims 23 to 28 is incubated with a test substance.

44. Process according to claim 43, characterised in that a membrane current is measured, said membrane current is compared with a membrane current which is measured in said host after incubation with a known control substance or in the absence of the test substance.

45. Process according to one of claims 43 and 44, characterised in that said blocker is bound to a channel, said host is incubated with a test substance and the displacement of the blocker or activator bound to the channel by the test substance is measured.

46. Process according to one of claims 43 to 45, characterised in that a host according to one of claims 23 to 28 is incubated with a test substance, the intracellular quantity of a divalent cation is determined and said quantity of divalent cation is compared with the quantity of said divalent cation which is measured when said host is incubated with a known control or in the absence of the test substance.

47. Process according to one of claims 43 to 46, characterised in that said process is a high throughput screening (HTS) test or an ultrahigh throughput screening (UHTS) test.

48. Activator of OTRPC4 which can be found using a process according to claims 43 to 47.

49. Blocker of OTRPC4 which can be found using a process according to claims 43 to 47.

50. Modulator of OTRPC4 which can be found using a process according to claims 43 to 47.

51. Antisense nucleic acid, characterised in that it is capable of hybridising with part of a nucleic acid according to one of claims 1 to 20 under stringent conditions.

52. Antisense nucleic acid according to claim 51, characterised in that it is a ribozyme.

53. Pharmaceutical composition, characterised in that it contains a nucleic acid according to one of claims 1 to 20 together with pharmaceutically acceptable carriers or excipients.

54. Pharmaceutical composition, characterised in that it contains an antisense nucleic acid according to one of claims 51 to 52 together with pharmaceutically acceptable carriers or excipients .

55. Pharmaceutical composition, characterised in that it contains a polypeptide according to one of claims 29 to 37 together with pharmaceutically acceptable carriers or excipients.

56. Pharmaceutical composition, characterised in that it contains a vector according to one of claims 21 to 22 together with pharmaceutically acceptable carriers or excipients.

57. Pharmaceutical composition, characterised in that it contains a host according to one of claims 23 to 28 together with pharmaceutically acceptable carriers or excipients.

58. Use of a nucleic acid according to one of claims 1 to 20 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

59. Use of an antisense nucleic acid according to one of claims 51 to52 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

60. Use of a vector according to one of claims 21 to 22 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

61. Use of a host according to one of claims 23 to 28 for preparing a medicament for the treatment of a disease selected from among diabetes, hyperlipidaemia, hyperproteinaemia, hypertension, stroke, renal insufficiency, shock and other pathophysiological conditions characterised by hyper- and hypoosmolarity.

62. Non-human mammal, characterised in that, in addition to its genome, it contains a nucleic acid according to one of claims 1 to 20 (transgene).

63. Non-human mammal, characterised in that, in its genome, a nucleic acid according to one of claims 1 to 20 is inactivated (gene knock-out).

64. Non-human mammal, characterised in that, in its genome, a nucleic acid according to one of claims 1 to 20 is modified (gene knock-in).

65. Process for producing a non-human mammal, characterised in that
   a) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid according to one of claims 1 to 20 and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector
   b) stably transfected stem cells from step a) are isolated and these are transferred into the germline of a female animal of said non-human mammal
   c) the offspring of said female animal from step b) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step a).

66. Process for producing a non-human mammal, characterised in that
   d) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid which is capable of hybridising with a nucleic acid according to one of claims 1 to 20 under stringent conditions and is inactivated by insertion of an additional nucleic acid sequence and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector
   e) stably transfected stem cells from step d) are isolated and these are transferred into the germline of a female animal of said non-human mammal
   f) the offspring of said female animal from step e) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step d) only slightly or not at all.

67. Process for producing a non-human mammal, characterised in that
   g) embryonic stem cells of said non-human mammal are transfected with a vector which contains a nucleic acid which is capable of hybridising

with a nucleic acid according to one of claims 1 to 20 under stringent conditions and is modified by insertion of an additional nucleic acid sequence and permits recombination between the genomic DNA of said non-human mammal and the nucleic acid contained in the vector

h) stably transfected stem cells from step g) are isolated and these are transferred into the germline of a female animal of said non-human mammal

i) the offspring of said female animal from step h) with a male animal of the same species are analysed for animals which express the polypeptide coded by the nucleic acid from step g).